

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P00033773-PO	FOR FURTHER ACTION		See Form PCT/IPEA/416																								
International application No. PCT/JP2004/004395	International filing date (<i>day/month/year</i>) 29.03.2004	Priority date (<i>day/month/year</i>) 18.04.2003																									
International Patent Classification (IPC) or national classification and IPC																											
<p>Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.</p>																											
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>6</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </tbody> </table>				<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- international search (Rule 12.3 and 23.1(b))
 - publication of the international application (Rule 12.4)
 - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- the international application as originally filed/furnished
- the description:
pages 1-14 as originally filed/furnished
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- the claims:
nos. 2-4, 10-13, 15, 17-19, 21 as originally filed/furnished
nos.* _____ as amended (together with any statement) under Article 19
nos.* 1, 7, 14, 16, 20, 22-31 received by this Authority on 11.11.2004
nos.* _____ received by this Authority on _____
- the drawings:
sheets 1-9 as originally filed/furnished
sheets* _____ received by this Authority on _____
sheets* _____ received by this Authority on _____
- a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:
- the description, pages _____
 - the claims, nos. 5, 6, 8, 9 _____
 - the drawings, sheets/figs _____
 - the sequence listing (*specify*): _____
 - any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- the description, pages _____
 - the claims, nos. _____
 - the drawings, sheets/figs _____
 - the sequence listing (*specify*): _____
 - any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V		Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																									
<p>1. Statement</p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td><u>1-4, 7, 10-31</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>_____</td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td><u>1-4, 7, 10-14, 16, 26, 27</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td><u>15, 17-25, 28-31</u></td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims</td> <td><u>1-4, 7, 10-31</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>_____</td> <td>NO</td> </tr> </table>				Novelty (N)	Claims	<u>1-4, 7, 10-31</u>	YES		Claims	_____	NO	Inventive step (IS)	Claims	<u>1-4, 7, 10-14, 16, 26, 27</u>	YES		Claims	<u>15, 17-25, 28-31</u>	NO	Industrial applicability (IA)	Claims	<u>1-4, 7, 10-31</u>	YES		Claims	_____	NO
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<p>2. Citations and explanations (Rule 70.7)</p> <p>Document 1: JP 2001-141179 A (Matsushita Electric Industrial Co., Ltd.), 25 May 2001, entire text, all drawings & US 2003-134078 A1</p> <p>Document 2: JP 2001-265138 A (Japan Vilene Co., Ltd.), 28 September 2001, entire text, all drawings</p> <p>Document 3: JP 11-280987 A (Sumitomo Chemical Co., Ltd.), 15 October 1999, entire text, all drawings</p> <p>Document 4: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 107427/1990 (Laid-open No. 64089/1992) (Sharp Corp.), 01 June 1992, entire text, all drawings</p> <p>Document 5: JP 2003-74786 A (Matsushita Refrigeration Co.), 12 March 2003, entire text, all drawings</p> <p>The inventions set forth in claims 1 to 4, 7, 10 to 14, 16, 26 and 27 are novel and involve an inventive step. The feature of employing a fluororesin in the thermal fusion layer of a vacuum insulation material in order to impart fire resistance characteristics and a melting point of 200°C or higher thereto is not disclosed in any of the documents that are cited in the</p>																											

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international search report, and would not have been obvious to a person skilled in the art.

The inventions set forth in claims 15, 17 and 22 to 24 do not involve an inventive step in the light of the disclosures of documents 1 and 2. Document 1 discloses the feature of using a vacuum insulation material in combination with a heat source that has a temperature of approximately 100°C, and document 2 likewise discloses the feature of using a vacuum insulation material in combination with a heat source that has a temperature of approximately 200°C (refer to document 1 (paragraph [0019]) and document 2 (paragraph [0004])); therefore, it would have been easy for a person skilled in the art to conceive of configuring an invention wherein a vacuum insulation material is used in combination with a heat source that has a temperature higher than 100°C but lower than 200°C in the light of the disclosures in question. In addition, when configuring in such a manner it would be natural for a person skilled in the art to establish the melting temperature of the thermal fusion layer, the protective layer and the like that constitute the vacuum insulation material so as to accommodate the temperature of the heat source that is applied thereto.

The invention set forth in claims 18 and 19 does not involve an inventive step in the light of the disclosures of documents 1 and 2. Document 2 discloses the feature of using a vacuum insulation material in a fixing roller (refer to paragraph [0002]).

The invention set forth in claims 20 and 21 does not involve an inventive step in the light of the disclosures of documents 1, 2 and 5. Document 5 discloses the feature of using a vacuum insulation material in the

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bottom surface of the case for a notebook computer or in the vicinity of the heater within a device for supplying hot water (refer to paragraphs [139] to [143] and fig. 12 to 14); therefore, it would have been easy for a person skilled in the art to conceive of employing the present vacuum insulation material in such devices.

The invention set forth in claim 25 does not involve an inventive step in the light of the disclosures of documents 1 and 2. Document 1 discloses the feature of using an imide resin in the protective layer (refer to paragraph [0028]).

The invention set forth in claim 28 does not involve an inventive step in the light of the disclosures of documents 1 and 2. Document 1 discloses the feature of using an undrawn polypropylene compound in the seal layer (4), and indicates that said seal layer (4) constitutes an adhesion layer (7) that can be thermally fused (refer to paragraphs [0017] to [0019]).

Therefore, document 1 can be said to disclose the feature of using an undrawn polypropylene compound in the thermal fusion layer.

The invention set forth in claim 29 does not involve an inventive step in the light of the disclosures of documents 1, 2 and 3. Document 1 discloses the feature of using a metal as the gas barrier layer (refer to paragraphs [0021] and [0028]), whereas document 3 discloses the feature of using an aramid resin in the same manner (refer to paragraph [0047]).

Therefore, it would have been easy for a person skilled in the art to conceive of combining the technical features in question, all of which pertain to vacuum insulation materials.

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The invention set forth in claims 30 and 31 does not involve an inventive step in the light of the disclosures of documents 1, 2 and 4. Document 4 discloses the feature of providing a protective member that covers the thermal fusion layer in the end surface of the outer coating material (refer to page 5).

Therefore, it would be easy for a person skilled in the art to conceive of combining the technical features in question, all of which pertain to vacuum insulation materials.